

REMARKS

Claims 1, 3, 11, 14 and 17 have been amended. Claims 1-12, 14-15 and 17-20 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

4. Claims 1-2, 4-13 and 16-20 currently stand rejected for allegedly being obvious in view of U.S. Patent 4,843,616 to Hoffman (hereinafter “Hoffman”).

Claim 1

As amended, claim 1 recites a method that includes *“selecting one of the auxiliary symbol and the preliminary symbol to provide a selected symbol; and adjusting at least one decision-feedback controller of a demodulator in response to the selected symbol.”* (cl. 1). A fair and proper reading of Hoffman indicates that it neither discloses nor suggests such features. Specifically, Hoffman merely discloses the use of a phase difference signal u_{d1} to control the VCO 10 (see Hoffman col. 4, lines 57-61 and col. 10, lines 27-35). The Official Action contends that Hoffman suggests adjusting at least one decision-feedback controller of a demodulator in response to the auxiliary symbol (see Official Action, pg. 2). However, this contention is technically incorrect since the VCO 10 in Hoffman is the only control loop the includes feedback, and the feedback signal provided to that control loop is clearly not an auxiliary signal as recited in claim 1. As shown in FIGs. 1 and 3 of Hoffman, the signal applied to the VCO 10 is not selectable from a primary symbol and an auxiliary symbol. That is, as shown in FIGs. 1 and 3, there is no selection functionality in the signal path of generating and providing the signal used to control the VCO 10.

Consequently, Hoffman is incapable of rendering obvious at the time of the invention the method of claim 1 that includes “*selecting one of the auxiliary symbol and the preliminary symbol to provide a selected symbol; and adjusting at least one decision-feedback controller in dependence on the auxiliary symbol.*” (cl. 1).

Claim 11

As amended, claim 11 recites a circuit that includes: “*a multiplexor that receives the preliminary symbol and the auxiliary symbol, and provides a selected symbol selected from the preliminary symbol and the auxiliary symbol; and a control unit that adjusts at least one decision-feedback controller of a demodulator in response to the selected symbol.*” (cl. 11). Again, a fair and proper reading of Hoffman indicates that it neither discloses nor suggests such features. Specifically, Hoffman merely discloses the use of a phase difference signal to control the VCO 10 (see Hoffman col. 4, lines 57-61 and col. 10, lines 27-35). The Official Action contends that Hoffman suggests adjusting at least one decision-feedback controller of a demodulator in response to the auxiliary symbol (see Official Action, pg. 2). However, this contention is technically incorrect, since the VCO 10 in Hoffman is the only control loop the includes feedback, and the feedback signal used in that loop is clearly not be an auxiliary signal as recited in claim 11. As shown in FIGs. 1 and 3 of Hoffman, the signal applied to the VCO 10 is not selectable from a primary symbol and an auxiliary symbol. That is, as shown in FIGs. 1 and 3 of Hoffman, there is no selection functionality in the signal path of generating and providing the signal used to control the VCO 10.

Consequently, Hoffman is incapable rendering obvious, at the time of the invention, the circuit of claim 11 that includes “*a multiplexor that receives the preliminary symbol and the*

auxiliary symbol, and provides a selected symbol selected from the preliminary symbol and the auxiliary symbol; and a control unit that adjusts at least one decision-feedback controller of a demodulator in response to the selected symbol.”

Claim 17

As amended, claim 17 recites a method that includes “*selecting one of the auxiliary symbol and the preliminary symbol to provide a selected symbol; and adjusting the at least one decision-feedback controller in dependence on the selected symbol.*” (cl. 17). The Official Action contends that Hoffman suggests adjusting at least one decision-feedback controller of a demodulator in response to the auxiliary symbol (see Official Action, pg. 2). However, this contention is technically incorrect since the VCO 10 in Hoffman is the only control loop the includes feedback, and the feedback signal used in that control loop is clearly not an auxiliary signal as recited in claim 17. As shown in FIGs. 1 and 3 of Hoffman, the signal applied to the VCO 10 is not selectable from a primary symbol and an auxiliary symbol. That is, as shown in FIGs. 1 and 3, there is no selection functionality in the signal path of generating and providing the signal used to control the VCO 10.

Consequently, Hoffman is incapable rendering obvious to a skilled person at the time of the invention the method of claim 17 that includes “*selecting one of the auxiliary symbol and the preliminary symbol to provide a selected symbol; and adjusting the at least one decision-feedback controller in dependence on the selected symbol.*” (cl. 17).

5. Claim 14 currently stands rejected for allegedly being obvious in view of Hoffman and U.S Published Application 2001/0017897 to Ahn (hereinafter “Ahn”).

As amended, claim 14 recites a circuit that includes “*a multiplexer that receives the auxiliary symbol and the preliminary symbol, and provides a selected signal therefrom to the at least one decision-feedback controller for control thereof, where at least one decision-feedback controller in the device utilizes the selected signal for control thereof.*” (cl. 14). The combined teachings of Hoffman and Ahn neither disclose nor suggest such a multiplexer and decision-feedback controller. The VCO 10 in Hoffman is the only control loop that includes feedback, and the feedback signal is clearly not an auxiliary signal as recited in claim 1. As shown in FIGs. 1 and 3 of Hoffman, the signal applied to the VCO 10 is not selectable from a primary symbol and an auxiliary symbol. That is, as shown in FIGs. 1 and 3, there is no selection functionality in the signal path of generating and providing the signal used to control the VCO 10. Similarly, Ahn neither discloses nor suggests selecting between a primary symbol and an auxiliary symbol to provide a selected signal that is used to control a decision-feedback loop. Accordingly, the combination of Hoffman and Ahn is incapable of suggesting “*a multiplexer that receives the auxiliary symbol and the preliminary symbol, and provides a selected signal therefrom to the at least one decision-feedback controller for control thereof, where at least one decision-feedback controller in the device utilizes the selected signal for control thereof.*” (cl. 14).

6. Claim 3 currently stands rejected for allegedly being obvious in view of Hoffman and Applicant Admitted Prior Art (hereinafter “Prior Art”).

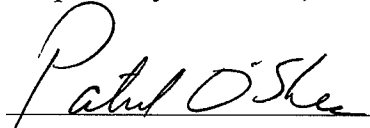
It is respectfully submitted that this rejection is now moot since claim 3 depends from claim 1, which is patentable for at least the reasons set forth above.

7. The indication that claim 15 contain allowable subject matter and would be allowed if rewritten to no longer depend from a rejected base claim is noted and appreciated.

For all the foregoing reasons, reconsideration and allowance of claims 1-12, 14-15 and 17-20 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,

A handwritten signature in cursive script, reading "Patrick O'Shea", written over a horizontal line.

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